

IN THE CLAIMS:

The following is a complete listing of the claims in this application. As stated above, these claims have not been amended.

1. (Previously presented): An image pickup apparatus comprising:  
a plurality of pixels; and  
a color filter array of four colors disposed on said plurality of pixels,  
wherein said color filter array has a periodicity of two rows x two  
columns, and  
wherein colors of color filters in a periodical unit of two rows x two  
columns are all different from each other and have fixed positions.
2. (Previously presented): An image pickup apparatus according to  
claim 1, wherein the color filters in the periodical unit include a filter for transmitting only  
green light in a visible light range, a filter for intercepting only blue color in the visible  
light range, a filter for intercepting only green light in the visible light range, and a filter for  
intercepting only red light in the visible light range.
3. (Previously presented): An image pickup apparatus according to  
claim 1, further comprising a first operation unit which performs an operation of  $A + B - C$   
- D, where A, B, C, and D represent signals picked up from an area of two rows x two  
columns.
4. (Original) An image pickup apparatus according to claim 3, wherein  
the signals A and B are disposed on a same line or on a same column, and the signals C

and D are disposed on a same line or on a same column.

5. (Previously presented): An image pickup apparatus according to claim 3, further comprising a second operation unit which performs an operation of  $A + C - B - D$ .

6. (Original) An image pickup apparatus according to claim 5, wherein the signals A and B are disposed on a same line or on a same column, and the signals C and D are disposed on a same line or on a same column.

7. (Previously presented): An image pickup apparatus according to claim 1, further comprising:

a first read-out unit which reads out a difference between: (a) an addition signal of a first row, first column signal and a first row, second column signal, and (b) an addition signal of a second row, first column signal and a second row, second column signal, in an area of two rows x two columns, and

a second read-out unit which reads out a difference between: (a) an addition signal of a first row, first column signal and a second row, first column signal, and (b) an addition signal of a first row, second column signal and a second row, second column signal, in the area of two rows x two columns.

8. (Previously presented): An image pickup apparatus according to claim 7, wherein areas of two rows x two columns are disposed without any space therebetween.

9. (Previously presented): An image pickup apparatus according to claim 1, further comprising a read-out unit that reads out an addition signal of all signals in an area of four rows x one column.

10. (Previously presented): An image pickup apparatus according to claim 1, further comprising a read-out unit that reads out an addition signal of all signals in an area of one row x four columns.

11 - 37. (Cancelled)

38. (Previously presented): A color filter array having a periodicity of two rows x two columns, wherein colors of color filters in a periodical unit of two rows x two columns are all different from each other and have fixed positions.

39. (Previously presented): A color filter array according to claim 38, wherein the color filters in the periodical unit include a filter for transmitting only green light in a visible light range, a filter for intercepting only blue color in the visible light range, a filter for intercepting only green light in the visible light range, and a filter for intercepting only red light in the visible light range.